



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**Region 6**

**1445 Ross Avenue, Suite 1200**

**Dallas, TX 75202-2733**

March 18, 2014

Mr. Carlos Swonke, P.G.  
Director, Environmental Affairs Division  
Texas Department of Transportation  
Dewitt C. Greer State Highway Building  
125 E. 11<sup>th</sup> Street  
Austin, Texas 78701

RE: Detailed Comment Letter for Draft Environmental Impact Statement (DEIS)  
U.S. 181 Harbor Bridge Replacement/State Highway 286 Improvement Project in  
Corpus Christi, Nueces County, Texas

Dear Mr. Swonke:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas has completed its review of the DEIS prepared by the Federal Highway Administration (FHWA) and Texas Department of Transportation (TXDOT).

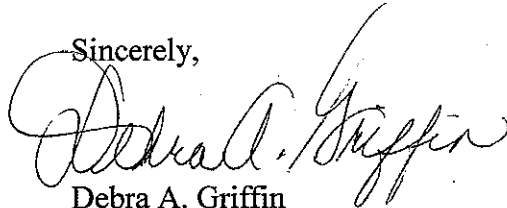
The DEIS evaluates the effects of replacing the Harbor Bridge and reconstructing portions of U.S. 181, Interstate Highway 37 and the Crosstown Expressway. Additionally, the DEIS describes and analyzes the potential effects from four alternative actions and the No Action alternative relating to land use, modes of transportation, public services and utilities, economic and employment conditions, community demographics and environmental justice, air quality, traffic noise, water resources, flood plains, soils and geology, vegetation and wildlife, threatened and endangered species, cultural resources, hazardous materials, and visual and aesthetic resources.

EPA rates the DEIS as "EC-2", i.e., EPA has "environmental concerns and requests additional information" in the Final Environmental Impact Statement (FEIS). EPA's Rating System Criteria can be found here: <http://www.epa.gov/oecaerth/nepa/comments/ratings.html>. Detailed comments are enclosed with this letter which clearly identifies our concerns and the informational needs requested for incorporation in to the FEIS. Responses to comments should be placed in a dedicated section of the FEIS and should include the specific location where the revision, if any, was made. If no revision was made, a clear explanation should be included.



EPA appreciates the opportunity to review the DEIS. Please send our office two copies of the FEIS, and an internet link, when it is sent to the Office of Federal Activities, EPA (Mail Code 22252A), William Jefferson Clinton Federal Building, 1200 Pennsylvania Ave., N.W., Washington, D.C. 20004. Our classification will be published on the EPA website, [www.epa.gov](http://www.epa.gov), according to our responsibility under Section 309 of the CAA to inform the public of our views on the proposed Federal action. If you have any questions or concerns, please contact Kimeka Price of my staff at (214)665-7438 or via email at [price.kimeka@epa.gov](mailto:price.kimeka@epa.gov) for assistance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Debra A. Griffin".

Debra A. Griffin  
Associate Director  
Compliance Assurance and  
Enforcement Division

Enclosure



**DETAILED COMMENTS  
ON THE  
FEDERAL HIGHWAY ADMINISTRATION  
AND  
TEXAS DEPARTMENT OF TRANSPORTATION  
DRAFT ENVIRONMENTAL IMPACT STATEMENT  
FOR HARBOR BRIDGE PROJECT IN  
CORPUS CHRISTI, NUECES COUNTY, TEXAS**

**BACKGROUND**

The DEIS evaluates the effects of replacing the Harbor Bridge and reconstructing portions of U.S. 181, Interstate Highway 37 and the Crosstown Expressway. Additionally, the DEIS describes and analyzes the potential effects from four alternative actions and the No Action alternative relating to land use, modes of transportation, public services and utilities, economic and employment conditions, community demographics and environmental justice, air quality, traffic noise, water resources, flood plains, soils and geology, vegetation and wildlife, threatened and endangered species, cultural resources, hazardous materials, and visual and aesthetic resources.

**COMMENTS**

The following comments are offered for FHWA's and TXDOT's consideration in preparation of the FEIS:

**Environmental Justice and Impacted Communities**

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), and the Interagency Memorandum of Understanding on Environmental Justice (August 4, 2011) direct federal agencies to identify and address disproportionately high and adverse human or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to participate in the decision-making process. Guidance<sup>1</sup> by Council on Environmental Quality (CEQ) clarifies the terms low-income, minority population, and describes the factors to consider when evaluating disproportionately high and adverse human health effects.

**Indirect Air Quality and Noise Impacts to Northside and Refinery Row Communities:**

The DEIS does not discuss any indirect impacts associated with raising the height of the Harbor Bridge, based on the reasoning that the proposed action must be the sole cause of the indirect

<sup>1</sup> Environmental Justice Guidance under the National Environmental Policy Act, Appendix A (Guidance for Federal Agencies on Key Terms in Executive Order 12898), CEQ, December 10, 1997.  
<http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf>

effect in order to require analysis. Section 6.5.2.2 of the DEIS incorrectly states that due to the Harbor Bridge's navigational clearance being *only one of several factors* involved in the introduction of new Panamax vessels and cruise ships to the Port that *there is no causal link* between the two events that would require analysis of growth-inducing impacts. However, CEQ regulation 40 CFR § 1508.8(b) states that indirect effects are caused by the action and are later in time or farther removed in distance, but still reasonably foreseeable. There is no mention in the regulation of a requirement that the action must be the sole cause (see *Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520 (8th Cir. 2003)). The elevation of the Harbor Bridge will allow for the introduction of both new Panamax vessels and cruise ships into the Port which would be a fact in cause, since these types of vessels are currently too large to enter the Port without the bridge being elevated. The bridge currently has a 138 foot clearance, while Panamax vessels require a minimum of 201 to 205 feet of clearance, and smaller cruise ships (2,600 passengers) require 203 feet. The preferred alternative will provide 216 feet of elevation to the Harbor Bridge, allowing for the passage of Panamax vessels and cruise ships into the Port, which would otherwise be too large to enter.

An additional requirement of indirect effects is that the impact be reasonably foreseeable. Section 2.4.2.3 of the DEIS makes clear that the introduction of Panamax vessels into the Port is reasonably foreseeable, by stating that in pursuing the purpose and need's objective to provide the transportation infrastructure to support the economic opportunities in the area, project engineers are considering the height of the proposed bridge, which will determine the air draft clearance vessels would need to call at the Port's Inner Harbor. Section 2.4.2.3 of the DEIS further states that the current 138 foot clearance is impacting operations at the port, and "the ability of the state to meet the *increasing freight traffic demands expected as a result of the expansion of the Panama Canal*." The introduction of cruise ships into the Port is similarly reasonably foreseeable. Section 2.4.2.3 of the DEIS states that another "economic opportunity that would potentially be presented by raising the height of the existing bridge can be found in the cruise ship industry."

#### ***Recommendation:***

The FEIS should include an analysis and discussion of indirect impacts to the Northside (Hillcrest and Washington-Coles) and Refinery Row (Dona Park and Academy Heights) communities associated with elevating the height of the Harbor Bridge. The indirect impacts discussion should include an analysis of noise and emission impacts from: 1) Panamax vessels and cruise ships (including hoteling and idling); 2) associated increases in rail and truck activity (including idling); 3) associated increases in off-road Port vehicles (including idling); and 4) increased traffic associated with cruise ship tourism and freight activity at the port.

#### **Cumulative Air Quality and Noise Impacts to Northside and Refinery Row Communities:**

The DEIS does not appear to evaluate cumulative air impact emissions at a localized level (including 'hot spots') for the Northside community and Refinery Row communities. In addition, the cumulative impacts analysis does not take the Port's indirect effects from elevating the Harbor Bridge into consideration. The DEIS did not evaluate the Northside community for cumulative impacts from the preferred alternative's alignment of US 181 within the

neighborhood; nearby factories and refineries; nearby railways; emissions from the Joe Fulton Trade Corridor; and new or current transportation and development projects in the vicinity. The relocation of US 181 into the Northside community will effectively enclose the Hillcrest neighborhood on all sides: US 181 on the eastern border; I-37 on the southern border; Flint Hills Resources on the western border; and railways, the ship channel, and the Joe Fulton Trade Corridor on the northern border.

Table and Figure 7.5-1 of the DEIS indicate that the current and proposed transportation and development projects in the area are considerable in both number and scope. For instance, some development projects in the general area include: Flint Hills West Plant; M&G Group Plant; Transfigura Terminal; Valero docks; Quintana Corpus Christi Infrastructure Project; Valero Energy; Citgo Refinery; and Flint Hills Resources. Some of the transportation projects include: Suntide Unit train sidings and rail yard; Nueces River rail yard; Joe Fulton Trade Corridor; ADM Grain Elevator track improvements; and Northside Permian rail extension and rail yard.

***Recommendation:***

The FEIS should include an analysis and discussion of cumulative air and noise impacts to the Northside (Hillcrest and Washington-Coles) and Refinery Row (Dona Park and Academy Heights) communities, including potential cumulative impacts from the preferred alternative's alignment of US 181 within the neighborhood; nearby factories and refineries; nearby railways; emissions from the Joe Fulton Trade Corridor; and new or current transportation and development projects in the vicinity.

***Direct Air Quality Impacts to Northside Community:*** Section 4.9.2.2 of the DEIS states that information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions. CEQ regulation 40 C.F.R. § 1502.22 requires that when information is incomplete or unavailable, the agency shall include an evaluation of such impacts based upon theoretical approaches or research methods generally accepted by the scientific community.

***Recommendation:***

The FEIS should include an evaluation of health impacts to the Northside community from MSAT and any other potentially harmful types of vehicle emissions (e.g. NO<sub>x</sub>, SO<sub>2</sub>, PM, and ozone) based on theoretical approaches or research methods generally accepted by the scientific community for the preferred alternative. Provide air monitoring for all vehicle pollutants found to potentially impact residents of the Northside community; particularly those adjacent to the proposed US 181 alignment. Also, FHWA and TXDOT should conduct a health impact assessment (HIA) for residents of the Northside community.

Section 4.9.2.2 of the DEIS states that under each alternative there may be localized areas where vehicle miles traveled would increase, and that it is possible localized increases in mobile source air toxics (MSAT) emissions may occur; especially along roadway sections constructed

closer to adjacent residential areas. Aside from this brief qualitative analysis, the DEIS does not currently contemplate emissions impacts at a localized scale (including identification of potential 'hot spots') despite the preferred alternative relocating US 181 in the middle of a residential neighborhood in the Northside community.

***Recommendation:***

FHWA and TXDOT should conduct a quantitative analysis of potential vehicle miles traveled and vehicle mix for the segment of US 181 adjacent to the Hillcrest and Washington-Coles neighborhoods, based on the preferred alternative. Also, FHWA and TXDOT should conduct an analysis of potential changes to residential traffic patterns, residential traffic volumes, and residential vehicle mixes that could potentially impact the Northside community (e.g. traffic associated with refineries and other nearby industrial facilities) due to relocation of US 181, based on the preferred alternative. Further, the FEIS should include a determination whether any potential vehicle emission 'hot spots' exist within the Northside community or have a potential to exist based on the preferred alternative.

Section 3.6.1 of the DEIS states that NO<sub>x</sub>, SO<sub>2</sub>, PM, and ozone are pollutants associated with vehicle emissions. However, the DEIS does not appear to analyze the potential air impacts from these pollutants to the Northside community; particularly residents of the Hillcrest and Washington-Coles neighborhoods adjacent to the proposed US 181 alignment for the preferred alternative.

***Recommendation:***

FHWA and TXDOT should conduct a quantitative analysis of potential air impacts from all vehicle pollutants that could potentially impact residents of the Northside community, particularly residents of the Hillcrest and Washington-Coles neighborhoods adjacent to the proposed US 181 alignment for the preferred alternative.

Displacement Impacts to the Northside Community: The Red (preferred) Alternative appears to present a disproportionately high and adverse impact to residents of the Northside and South Central communities, as it would displace more than twice as many minority and low-income residential housing units (39 units) than would the Green Alternative (15 units) and is predominantly borne (95% of units) by minority and low-income individuals. While housing may be available in a new apartment complex near Leopard St. and Palm Dr., this is not located within the Northside community and easy access to the Northside community would be prohibited by the physical barrier created from I-37. In addition, Section 4.4.1.1 of the DEIS states that for the Northside and South Central communities (under the Red Alternative) in some instances, there are no comparable houses for sale in their respective communities. Further, some displaced residences may not have any comparable housing available in Corpus Christi.

The DEIS identifies four alternatives and a No Action alternative. The Orange and Red Build Alternatives have the greatest impact on minority and low-income communities. The Green Build Alternative has the least impact overall to minority and low income communities.



***Recommendation:***

The FEIS should identify the displacement of low-income and minority populations from the Red Alternative as disproportionately high and adverse and provide a discussion of potential mitigation measures (aside from the Uniform Act) to address instances where a displaced minority or low-income resident is unable to locate comparable housing within the same community or must move outside the community in which they currently reside. FHWA and TXDOT should consider a Build Alternative that will provide minority and low income communities with the most benefit and the best overall quality of sustainable living.

**Hazardous and Solid Waste**

In the Hazardous Materials Sections, the DEIS discusses the hazardous materials relating to existing and previous land use, superfund site, oil/gas well and pipeline sites, and other sites of concern. The DEIS does not identify the projected volumes, the composition or constituents of the waste, appropriate mitigation to minimize the generation of solid and hazardous wastes, and any impacts associated with hazardous or solid waste potential produced during the proposed project.

***Recommendation:***

The FEIS should fully address the potential direct, indirect, and cumulative impacts of solid and hazardous waste. The document should identify projected types and volumes, the composition or constituents of solid and hazardous waste, and expected storage, disposal, and management plans. Appropriate mitigation should be evaluated, including measures to minimize the generation of hazardous waste (i.e., hazardous waste minimization).

**Threatened and Endangered Species**

The DEIS identifies that U.S. Fish and Wildlife Service (USFWS) and Texas Parks and Wildlife Department (TPWD) were contacted for threatened and endangered species consultation under Section 7 of the Endangered Species Act, but there is not concurrence from the USFWS and TPWD on any conclusion reached by FHWA and TXDOT in the DEIS on the environmental consequences of the proposed project's alternatives.

***Recommendation:***

The FEIS should incorporate concurrence from the USFWS and TPWD on the FHWA and TXDOT determination for impacts of the proposed project to threatened and endangered species.

**Consultation and Coordination with Indian Tribes**

Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*

(65 FR 67249; November 6, 2000)<sup>2</sup>, the Presidential Memo of November 5, 2009<sup>3</sup>, and the July 30, 2010 Office of Management and Budget guidance for implementing the Presidential Memo<sup>4</sup>, require regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes.

The DEIS does not fully discuss FHWA and TXDOT compliance with Executive Order 13175. The United States has a unique legal relationship with federally-recognized tribes based on the Constitution, treaties, statutes, Executive Orders, and court decisions. This relationship includes recognition of the right of tribes as sovereign governments to self-determination, and an acknowledgment of the federal government's trust responsibility to tribes. The precise nature of this relationship will vary depending upon the identity of the tribes, nature of trust resources, and federal agencies involved.

***Recommendation:***

The FEIS should incorporate a discussion demonstrating compliance with Executive Order 13175. These documents would demonstrate fulfillment of consultation and coordination duties by FHWA and TXDOT with Tribes.

**Water Resources**

Executive Order 11990, *Protection of Wetlands*, mandates that a project should avoid wetlands or, if no practicable alternative exists that avoids wetlands, impacts to wetland areas should be minimized as much as possible. In Section 4.24 Irreversible and Irretrievable Commitment of Resources of the Environmental Consequences Section, the DEIS identifies that all the proposed build alternatives would permanently impact waters of the U.S., including tidal fringe wetlands within the footprint of the proposed project, resulting in the irreversible commitment of these valuable resources.

***Recommendation:***

The FEIS should include a conceptual compensatory mitigation plan for unavoidable adverse impacts to the waters of the U.S., including wetlands.

**Children's Health**

The DEIS contains a number of references to children's health and provides ample demographic data describing the community, schools, child care facilities, parks, housing, and other places where children live, learn, and play. The DEIS also provides a discussion regarding the identification of pollution and sources of concern; exposure assessment and baseline health

<sup>2</sup>Executive Order 13175, <http://www.gpo.gov/fdsys/pkg/FR-2000-11-09/pdf/00-29003.pdf>

<sup>3</sup> Presidential Memo of November 5, 2009, <http://www.whitehouse.gov/the-press-office/memorandum-tribal-consultation-signed-president>

<sup>4</sup>July 30, 2010 OMB Guidance for Implementing the Presidential Memo, <http://www.whitehouse.gov/sites/default/files/omb/memoranda/2010/m10-33.pdf>

conditions including poverty rates, respiratory impacts, traffic noise, impacts from air pollutant emissions and chemical exposures; and impacts that could potentially affect obesity. However, there is no reference to Executive Order 13045 *Protection of Children from Environmental Health Risks and Safety Risks* in the DEIS.

***Recommendation:***

The FEIS should include a reference to and language of Executive Order 13045 *Protection of Children from Environmental Health Risks and Safety Risks*.

**Mitigation of Adverse Effects**

*Environmental Justice:* In Section 4.7.5 Measures to Avoid, Minimize, and Mitigate Adverse Effects of the Environmental Consequences Section, the DEIS identifies that the proposed project would result in potentially adverse effects to minority and low-income populations, regardless of the alternative. Further, the DEIS discusses that the measures for mitigation are conceptual and FHWA and TXDOT will continue to solicit input with regard to the potential for implementation of some or all mitigation measures. Additionally, the DEIS does not address how FHWA and TXDOT will be bound to implement these mitigation measures.

Section 6.5.1.1 of the DEIS states that mitigation measures for the effects of the Red (preferred) Alternative combined with beneficial economic, safety, and connectivity effects overall would substantially offset adverse effects to minority and low-income populations to the extent that the effects would not be disproportionately high and adverse. However, this has not been adequately demonstrated in the DEIS. While the DEIS does make mention of some potential mitigation measures, no specifics are provided. Further, no discussion or rationale is provided to specifically address how particular mitigation measures might have offset specific impacts to low-income or minority populations in the Northside community to the degree that the impacts would no longer be disproportionately high and adverse. If the proposed mitigation measures do not create a situation where the impacts are no longer predominantly borne by the minority or low-income populations, then by definition, the impact would still be disproportionately high and adverse.

***Recommendation:***

The FEIS should include a discussion or rationale to specifically address how particular mitigation measures offset specific impacts to low-income or minority populations to the degree that the impacts would no longer be disproportionately high and adverse and clearly show a commitment to implement those measures. Otherwise, the FEIS should identify the impacts of the proposed project as disproportionately high and adverse. The FEIS should further include a discussion of additional mitigation measures to address potential impacts of residential displacements and vehicle emissions.

*Community Cohesion and Access:* Section 4.7.3.3 of the DEIS states that the Red Alternative's relocation of US 181 into the Northside community would create a physical and visual barrier between the Hillcrest and Washington-Coles neighborhoods, potentially affecting community cohesion. Section 4.6.3.2 of the DEIS states the preferred alternative would also require the closure of a portion of Winnebago Street, an important thoroughfare linking Hillcrest with Washington-Coles and which is relied on by Hillcrest residents to access important community services, such as the Oveal Williams Senior Center, the CHRISTUS Spohn Family Health Clinic, Solomon Coles High School and Education Center, and the St. Paul United Methodist Church. While a more circuitous alternate route will be made available, the DEIS states that the new access route could discourage non-drivers from making these trips. Furthermore, although not discussed in the DEIS, the relocation of US 181 into the Northside community will effectively enclose the Hillcrest community on all sides: US 181 on the eastern border; I-37 on the southern border; Flint Hills Resources on the western border; and railways, the ship channel, and the Joe Fulton Trade Corridor on the northern border.

***Recommendation:***

The FEIS should incorporate a discussion or rationale in the FEIS to specifically how particular mitigation measures might offset specific impacts to community cohesion and access to the degree that the impacts would no longer be disproportionately high and adverse and clearly show a commitment to implement those measures. Otherwise, the FEIS should identify the impacts of the proposed project as disproportionately high and adverse. The FEIS should further provide a discussion of additional mitigation measures to address these impacts.

*Cultural Resources:* In Section 4.17.2.4 Mitigation for Historic Resources of the Environmental Consequences Section, the DEIS identifies that TXDOT proposes to mitigate adverse effects. Further, the DEIS discusses that a public education campaign could be employed which focuses on the significance of the Harbor Bridge and the six adjacent concrete bridges. Additionally, the DEIS does not address how TXDOT will be bound to these mitigation measures. The FEIS should further provide a discussion of additional mitigation measures to address these impacts.

***Recommendation:***

The FEIS should incorporate a discussion or rationale in the FEIS to specifically how particular mitigation measures might offset specific impacts to cultural resources to the degree that the impacts would no longer be disproportionately high and adverse and clearly show a commitment to implement those measures. Otherwise, the FEIS should identify the impacts of the proposed project as disproportionately high and adverse. The FEIS should further provide a discussion of additional mitigation measures to address these impacts.

*Visual and Aesthetic Impacts:* Section 4.7.3.8 of the DEIS states the minority and low-income Northside community stands to be most affected by the Red (preferred) and Orange Alternatives; with the preferred alternative representing a substantial change in the visual and

aesthetic character of the neighborhood. As this substantial change does not occur in other neighborhoods under the preferred alternative, it would appear that the visual and aesthetic impacts will be predominately borne by minority and low-income populations in the Northside community.

***Recommendation:***

The FEIS should incorporate a discussion or rationale in the FEIS to specifically how particular mitigation measures might offset specific impacts to the degree that the impacts would no longer be disproportionately high and adverse and clearly show a commitment to implement those measures. Otherwise, the FEIS should identify the impacts of the proposed project as disproportionately high and adverse. The FEIS should further provide a discussion of additional mitigation measures to address these impacts.

*Wildlife Habitat:* In Section 4.23.1.3 Irreversible and Irretrievable Commitment of Resources regarding Wildlife Habitat of the Environmental Consequences Section, the DEIS identifies that all the proposed build alternatives would permanently impact wildlife habitat within the footprint of the proposed project and these impacts would represent an irretrievable commitment of these valuable resources over the life of the proposed project. Further, in Section 4.16.1.1 Impacts to Wildlife Habitat, the DEIS discusses the five habitat types that would be directly affected by construction of the proposed project, depending upon the build alternative. Additionally, the DEIS identifies the use of Best Management Practices (BMPs), careful vegetation clearing techniques, monitoring before and during construction activities, and replanting would minimize impacts to wildlife habitat within the proposed project area, including tidal waters and coastal salt march areas. Additionally, the DEIS does not address how FHWA and TXDOT will be bound to implement these mitigation measures.

***Recommendation:***

The FEIS should incorporate a discussion or rationale in the FEIS to specifically how particular mitigation measures might offset specific impacts to wildlife habitat to the degree that the impacts would no longer be disproportionately high and adverse and clearly show a commitment to implement those measures. Otherwise, the FEIS should identify the impacts of the proposed project as disproportionately high and adverse. The FEIS should further provide a discussion of additional mitigation measures to address these impacts.

*Noise:* In Section 4.10 Traffic Noise Impacts of the Environmental Consequence Section, the DEIS identifies existing and predicted traffic noise levels for each build alternative. Specifically, for the Red Alternative (the Preferred Alternative), approximately 489 receivers would be expected to experience traffic noise impacts over that Noise Abatement Criteria and approximately 167 receivers would be expected to have future noise levels exceed existing noise levels by more than 10 dBA. The receivers are commercial, residential and community entities. Further, the DEIS identifies that impacts would be located throughout the study area.

In Section 9.6 Traffic Noise Impacts of the Environmental Permits, Issues, and Commitments Section, the DEIS identifies that two noise barriers are proposed for incorporation into the final design of the proposed project, public noise workshops will be held with owners of property adjacent to the proposed noise barriers, and a vote as to whether to construct the barrier.

Section 4.7.3.5 of the DEIS states traffic noise impacts would be concentrated along the roadways and *predominantly borne by low-income and minority populations*. Given FHWA's definition of disproportionately high and adverse impacts, this statement should qualify traffic impacts to the Northside community from the Red Alternative as such. Furthermore, Table 4.6-3 of the DEIS indicates that the Northside community will have potential noise impacts for three times as many receivers (204) from the preferred alternative, as compared to the Green Alternative (68). Additionally, Table 4.10-5 indicates that the Red Alternative can only provide noise barriers for approximately 27 receivers (13%), while Table 4.10-4 indicates the Green Alternative could provide noise barriers for 43 receivers (63%). Additionally, the DEIS does not address how FHWA and TXDOT will be bound to implement these mitigation measures.

***Recommendation:***

The FEIS should incorporate a discussion or rationale in the FEIS to specifically how particular mitigation measures might offset specific impacts from noise to the degree that the impacts would no longer be disproportionately high and adverse and clearly show a commitment to implement those measures. Otherwise, the FEIS should identify the impacts of the proposed project as disproportionately high and adverse. The FEIS should further provide a discussion of additional mitigation measures to address these impacts.